Radiotherapy for pericardial involvement of multiple myeloma. A case report

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Introduction. Pericardium involvement is unusual in Multiple myeloma (MM) (0.5%), with less than 25 cases recorded in relevant literature. It is associated with poor prognosis. Treatment options described in the literature are pericardiocentesis with intrapericardial bleomycin, and chemotherapy with very low response rates.
Case report. 67 year old male diagnosed in 2001 with multiple myeloma Bence-Jones Kappa stage IIIB. Initial complete response was obtained after treatment with VBCMP/VBAD and auto-TPH. In 2006 and 2008 progressions of MM were treated with three more lines of chemotherapy with final complete remission. In 2011, patient presented cardiogenic syncope and pericardial effusion was observed on transesophageal echocardiography (TEE). Two months later, CT scan and TEE showed pericardial effusion progression with heart cavities partial collapse. Pericadiocentesis was performed, and cytologyc examination revealed clearly plasma cells. Subsequently, an instillation of intrapericardial bleomycin and systemic treatment with lenalidomide were performed. Later TEE showed residual pericardial effusion and discontinuities in the edges of the pulmonary artery, suggesting mediastinic-pericardial mass, confirmed by MRI scan. The patient was referred to our department, where external beam radiotherapy on the mass to a total dose of 30 Gy by 3 Gy per fraction was performed. In later revisions, MRI scan and TEE showed pericardial effusion decreased and a marked shrinkaged of the cardiac lesion. Disease progressed to the kidney with the patient ultimately suffering renal failure with hydroelectrolytic imbalance and medullary aplasia secondary to chemotherapy which resulted in sepsis, leading to the death of the patient two months later.
Conclusion. Pericardial involvement by MM can generate a pericardial effusion that can evolve into pericardial tamponade, with a very poor prognosis. In current publications there are no references to external radiotherapy as a treatment option. In this case we used radiotherapy with favorable local results.

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Radiotherapy in duodenal lymphoma: A case report

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Introduction. Primary small bowel non-Hodgkin lymphoma is uncommon. Primary gastrointestinal non-Hodgkin lymphoma is 4–20% of all lymphomas and small bowel lymphoma is 20–54% of all gastrointestinal non-Hodgkin lymphomas.
Methods. A 62 year-old woman presented with abdominal pain and constipation as main symptoms. She did not have B symptoms. The patient underwent endoscopy with duodenal biopsy. The histologic findings shows low-grade follicular lymphoma. She completed study with body CT and bone marrow biopsy. After endoscopic biopsy the patient was treated with three-dimensional conformal radiation therapy. The field included the volved duodenal portion, to a total dose of 30 Gy (5×2 Gy).
Results. The most common treatment has been surgical resection followed adjuvant chemotherapy, radiotherapy or both. This case was an indolent disease and the patient preferred radiotherapy alone and delayed chemotherapy only in case of relapse. With 9 months of follow-up, the patient is free of disease. She underwent endoscopy with biopsy four months after the treatment and the histologic finding was negative. Acute side effect was grade I nausea and vomiting. The patient does not have late toxicity.
Conclusion. Radiation therapy for small bowel lymphoma is well tolerated and gives good local control. However to carry out this treatment the lesion have to locate in a no mobile small bowel portion. Some lesions cannot be located by CT imaging, in this cases fiducial markers placed during the endoscopy could help us to planning the treatment.

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Retrobulbar extranodal marginal zone B-lymphoma of mucosa-associated lymphoid tissue (MALT)

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Introduction. Orbital lymphomas constitute about 8% of extranodal lymphomas and 1% of NHL, usually affecting conjunctiva and eyelids and rarely retrobulbar region. Optimal treatment is yet to be determined. RT, frequently used, is a treatment that offers excellent local response rates allowing organ preservation.
Method. 74 year old male with clinical three-month history of mild left proptosis and diplopia. On examination was observed left VI cranial nerve paresis and exophthalmos. Normal visual acuity and fundus. Orbits CT and MRI describes a $15 \times 12 \times 6$ mm left intraorbital mass perfectly defined, occupying half inferior orbital, hypointense, that contacts the posterior, temporal and inferior pole of the eyeball (inferior rectus, inferior oblique and lacrimal gland) without infiltration signs. Transconjunctival approach to left periorbital incisional biopsy was performed with pathology result: connective tissue infiltration by Marginal zone lymphoma of mucosa-associated lymphoid tissue (MALT). The patient was treated with 3D conformal radiotherapy with TC support (1.25 mm

interval sections) and diagnostic MRI image fusion. CTV was left orbit using two 6 MV wedges oblique-fields. A total dose of 27 Gy in 15 fractions was administered. Tolerance to treatment was adequate, with mild transient epiphora and conjunctivitis. Result: two months after treatment there was a complete clinical and radiological response without any toxicity associated.
Conclusions. There are no data from randomized trials on which to base therapeutic decisions, however, numerous retrospective studies show that RT offers excellent local control rates and cause-specific survival at doses up to 30Gy allowing preserve the orbital integrity with very low risk of severe complications. Other treatment options include complete excision of small lesions, intralesional interferon alpha or observation. Eradication of Chlamydia Psitttaci, whose DNA has been found in some conjunctival MALT, with doxycycline, showed partial and even complete responses in some series.

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Total body irradiation (TBI) institutional experience

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Purpose. Was analyzed our experience in patients with hematological diseases who underwent myeloablative transplant with TBI and cyclophosphamide as part as the conditioning regimen.
Patients and methods. Retrospective study of 43 patients (17 female, 26 males) from October 2006 to December 2011 underwent transplantation with TBI as part of the conditioning regimen (42 allogeneic transplant and 1 autologous transplant). The haematological disease was acute leukaemie in 35 patients (81%), NHL in 3 (7%) and others in 5 patients (12%). The dose of TBI were 12 Gy in 6 fractions, twice a day with an interval at least of 6 h. No patient received more than 10 Gy in lungs. The administration of the treatment was performed on a linear accelerator, energy of 15 MV a source to patient's middle line distance of 5 m. The patients are inmovilized in supine position. The skin dose is increased using a large plastic screen (methacrylate) covering the whole body and is placed approximately 10 cm from the patient, which acts as a source of scattered electrons. We analyzed the incidence of acute transplant related toxicity (before day +90) and overall survival (OS), transplant related mortality (TRM) and disease free survival (DFS). Results: Acute transplant toxicity incidence was: grade >3 mucositis 29 cases (67%), acute parotidis 7 cases (16%) and grade >3 nausea or vomit in 2 case (5%). Day +100 TRM, OS and DFS were 2%, 98% and 100% respectively. With a median follow up of 44 months (range 1–85), 32 patients (74%) are alive and in complete remission of their underlying disease, 8 patients (19%) died of disease relapse or progression and 2 patients of TRM.
Conclusions. DFS and toxicity are successfully compared to literature data.

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